

optical signal comprising a data input signal and a data tag input signal, the data tag input signal having a different frequency to the data input signal;

an amplifier arranged to receive the output signal and generate an amplified signal; and

a data output module being coupled to an output of the amplifier for generating a data output signal corresponding to the data input signal;

wherein a data tag output module, having a frequency range corresponding to the frequency range of the data tag input signal, being coupled to the output of the amplifier for generating a data tag output signal corresponding to the data tag input signal.

2. (Amended) A data tag recovery apparatus as claimed in Claim 1, wherein the photodetector is a PIN photodiode or an avalanche photodiode.

3. (Amended) A data tag recovery apparatus as claimed in Claim 1, wherein the amplifier is a transimpedance amplifier.

4. (Amended) A data tag recovery apparatus as claimed in Claim 3, wherein the output of the amplifier is a differential output.

5. (Amended) A data tag recovery apparatus as claimed in any one of the preceding claims, wherein the data output module comprises a postamplifier and means for AC coupling the postamplifier to the amplifier.

6. (Amended) A data tag recovery apparatus as claimed in claim 1,

wherein the data tag output module comprises a low frequency amplifier and means for AC coupling the low frequency amplifier to the amplifier.

7. (Amended) A data tag recovery apparatus as claimed in Claim 4, wherein the low frequency amplifier is an operational amplifier.

8. (Amended) A data tag recovery apparatus as claimed in claim 1, wherein the data input signal is in the frequency range of four decades below the bit rate of the data input signal.

10. (Amended) A data tag recovery apparatus as claimed in Claim 6, wherein the data tag input signal is at a frequency of about 250 kHz for a 2.488 Gbit system.

11. (Amended) A method of recovering a data tag signal, the method comprising the steps of:

generating an output signal in response to a received first input signal comprising a data input signal and a data tag input signal, the data tag input signal having a different frequency to the data input signal;

amplifying the output signal to generate an amplified signal; and

processing the amplified signal to generate a data output signal corresponding to the data input signal;

wherein the amplified signal is processed to generate a data tag output signal corresponding to the data tag input signal.